

Jennifer H. Watkins

EDUCATION

Kalamazoo College, Kalamazoo, Michigan

Bachelor of Arts, June 2005

- Inducted, Phi Beta Kappa
- Designed Interdisciplinary Major: Mechanics of the Mind, combining psychology, anthropology, philosophy, and complex systems studies
- Cumulative GPA: 4.0/4.0, graduated *summa cum laude*
- Dean's List, every term
- Psychology lab assistant researching taste aversion in rats
- Alpha Lambda Delta National Academic Honor Society
- Kalamazoo College Honors Scholarship

University of Wollongong, Wollongong, Australia

Adventure-filled study abroad program, July 2003 – February 2004

- Received "Distinction" or higher in each course

RESEARCH EXPERIENCE

Los Alamos National Laboratory, Los Alamos, NM

(September 2005- present)

Technical Staff Member: Work for Dr. Norman L. Johnson in the Theoretical Division to research, develop, publish, and present in epidemiology, social science, and complex systems. Founding member of Collective Decision Making Systems project.

Ctr. for the Study of Complex Systems, U. of Michigan, Ann Arbor, MI (Summer 2004)

Research Intern: Worked for Dr. Scott E. Page to research and contribute to the college textbook *The Difference* regarding diversity in systems based on my knowledge in psychology, philosophy, and anthropology.

- Developed skill in using models to illustrate phenomenon
- Learned about the role of diversity in a system
- Researched and wrote a chapter for textbook

PUBLICATIONS

Watkins, J.H., "Prediction Markets as an Aggregation Mechanism for Collective Intelligence," *Proceedings 2007 UCLA Lake Arrowhead Human Complex Systems Conference*, LA-UR-07-2027, May 2007.

Johnson, N.L., Watkins, J.H., "A Model of Emergent Leadership --- For Communities, Organizations, and Defense," *Proceedings 2007 UCLA Lake Arrowhead Human Complex Systems Conference*, accepted.

Johnson, N.L., Watkins, J.H., "Interplay of Adaptive Selection and Synergistic Performance", LA-UR-07-1706, in review.

Watkins, J.H., Rodriguez, M.A., “Weak Links: Stabilizers of Complex Systems from Proteins to Social Networks, by Peter Csermely”, book review, *Artificial Life* 13:2 (2007): 207-208.

Rodriguez, M.A., Steinbock, D.J., Watkins, J.H., Gershenson, C., Bollen, J., Grey, V., deGraf, B., “Smartocracy: Social Networks for Collective Decision Making”, *Proceedings 2007 Hawaii International Conference on System Sciences (HICSS)*, IEEE Computer Society, doi:10.1109/HICSS.2007.484, LA-UR-06-2244, January 2007.

Rodriguez, M.A., Watkins, J.H., Steinbock, D.J., Gershenson, C., “Snurf: Social Networks for News Media Distribution,” Los Alamos National Laboratory tech report, LA-UR-06-2564, 2006.

PATENTS

Rodriguez, M.A., Steinbock, D.J., Watkins, J.H., “Social Semantic Networks for Distributing Contextualized Information,” Los Alamos National Laboratory and Stanford University, Patent Pending: LAD2006-115, December 2006.

PRESENTATIONS

UCLA Conference on Human Complex Systems, Lake Arrowhead, CA
Watkins, J.H., *Prediction markets as an aggregation mechanism for collective intelligence* (April 2007).

UCLA Conference on Human Complex Systems, Lake Arrowhead, CA
Johnson, N.L., Watkins, J.H., *A model of emergent leadership – for communities, organizations, and defense* (April 2007).

Hawaii International Conference on System Sciences, Waikoloa, HI
Watkins, J.H., *Social networks for collective decision making* (January 2007).

Selection, Self-organization, and Diversity, Katoomba, Australia
Johnson, N.L., Watkins, J.H., *Non-selective, emergent, collective processes in the context of a developmental model of evolution*, keynote (May 2006).

iMod: Hacking the Future, Santa Fe, NM
Johnson, N.L., Watkins J.H., *Diversity: A weapon of mass construction*, LA-UR-03-0735 and 03-3360 (April 2006).

Infectious Ideas Workshop, McLean, VA
Johnson, N.L., Watkins, J.H., *Is identity an infectious idea?: Importance*, Hosted by Mitre Corporation, LA-UR-03-1270 (March 2006).

Medicine Meets Virtual Reality Conference, Long Beach, CA
Watkins, J.H., *Models of human behavior during a pandemic* (January 2006).

Complexity of Diversity Colloquium, Ann Arbor, MI
Johnson, N.L., Watkins, J.H., *The role of diversity in a complex system*, Hosted by the University of Michigan (November 2005).

Computer Science, Mathematics, Physics Symposium, Kalamazoo, MI

Watkins, J.H., *Individuals unite!: Generating synergistic understanding through online prediction markets*, Paper presentation derived from undergraduate thesis (April 2005).

Southwestern Psychological Assoc. Annual Conference, Memphis, TN

Watkins, J.H., *Order of conditioning events matters: A comparison of $AX+/A+$ vs. $A+/AX+$ in compound aversion conditioning* (March 2005).

Prize Recipient: Selected by Association members to receive the H. Wayne Ludvigson Prize for the best student paper presentation. Also received cash award linked to the Ludvigson honor.

IN PROGRESS

Watkins, J.H., "Prediction Markets: An Unexplored Collective Decision Making System," LA-UR-07-2028.